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ABSTRACT

A study involving thirty-four schools in New York State examined the influence of parents, peers, and school personnel on students' attitude toward selecting and enrolling in particular occupational education programs. Information was collected from a sampling of tenth grade general curriculum students, eleventh and twelfth grade occupational education students, parents, teachers, and counselors. Groups were surveyed by means of questionnaires, including both multiple choice and open-ended questions. A purposive, multistage cluster sampling technique was used to select respondents who participated in four vocational programs (cosmetology, drafting, electronics, and construction and maintenance). Tenth grade students who planned to take occupational education courses were surveyed about the people influencing their course selection and about the degree of support or opposition they expected from peers for various occupational programs. Students chose a number of alternative factors that would reduce their uneasiness in enrolling in a nontraditional course. Students enrolled in occupational education courses were surveyed regarding their satisfaction with their courses and their reasons for selecting them. Teachers and counselors were surveyed about their attitudes towards nontraditional enrollment in vocational education programs, previous participation in sex equity training workshops, and current practices which might facilitate or discourage nontraditional enrollments. (MN)

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SEX EQUITY: FACTORS ASSOCIATED WITH NONTRADITIONAL VOCATIONAL ENROLLMENTS

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SEX EQUITY: FACTORS ASSOCIATED WITH
NONTRADITIONAL VOCATIONAL ENROLLMENTS

During the past decade, both the popular and research literatures have focused attention on the problems accompanying the widespread practice of mechanically assigning societal roles to individuals on the basis of their sex. This practice is commonly called sex-role stereotyping. Most of these writings have emphasized the negative effects of stereotyping on both males and females.

There is considerable evidence that by the time children enter school, they have already acquired stereotyped attitudes about "appropriate" behaviors for males and females through the training they have received from their parents. These early attitudes and roles are perpetuated and reinforced through the students' subsequent school experiences (Levy, 1972; Stacey Bereaud & Daniels, 1974; Lewis & Kaltreider, 1978). Consequently, it is not surprising to find that by the time they are in high school, young men and women differ in their anticipated choices and levels of asperation. Marini (1978) in reviewing the research on adolescent aspirations reports the general conclusions that adolescent boys aspire to a higher level of education than girls and that the planned occupational choices of the two sexes are highly sex-stereotyped.

It is in vocational education that the influence of sex-role stereotyping can be most easily observed, in the program and career choices of both males and females. According to enrollment data for 1978-1979, although females composed 61 percent of all students enrolled in vocational education in New York State, they were disproportionately represented in programs such as health (91% female), occupational home economics (78% female), and office and business (74% female). Similarly, males formed a substantial majority in program areas like technical (83% male) and trade and industry (77% male).

To eliminate such sex-stereotyping in enrollments, federal legislation now mandates equal access to vocational education for men and women. Title IX of the 1972 Educational Amendments prohibits discrimination on the basis of sex in all federally funded educational institutions. More recent legislation, the 1976 Amendments to the Vocational Education Act of 1963, requires that each state provide a detailed description of policies it will follow and actions it will take to overcome sex discrimination and sex-stereotyping in state and local vocational education programs. These measures also include provisions for incentives to encourage enrollments in non-traditional programs and for development of model programs to reduce occupational sex-stereotyping.

To assist educational institutions in implementing such programs, the present study was designed to identify some of the factors which are influential in students' career and program decisions. In particular, it was focused on identifying the influence that parents, peers and school personnel have on students' attitudes toward selecting and enrolling in particular occupational education programs. The hope was to produce information useful for a subsequent intervention into the social dynamics of the school, peer groups, home and/or community. This intervention would be for the purpose of affirmative action to promote program and course selection on the basis of students' specific talents and interests.

A variety of features were built into the study to provide useful comparisons. Both students in 10th grades in general programs as well as 11th and 12th graders in specific occupational programs in area vocational high schools were studied.

Procedures

Information was collected from a sample of 10th grade general curriculum students, their parents, teachers and counselors and 11th and 12th grade occupational education students, their parents, teachers and counselors.

These groups were surveyed by means of questionnaires which included both multiple choice and open-ended questions.

Four programs from the Trade, Industry and Service Area were chosen for inclusion: construction and maintenance trades, drafting, electronics and personal services. These were selected on the basis of enrollments of students in occupational programs during 1977-78. Programs were sought where:

1) Less than 20 percent of the students were of one sex

2) Total enrollments were greater than 1,000 students

3) The programs were offered in at least twenty schools

4) At least five school districts had enrollments including students of both sexes and at least one of these five had more than two students of the underrepresented sex.

Application of these criteria produced seven programs out of which four were chosen for study. The four selected were cosmetology - the only program nontraditional for boys, drafting - the one with the largest proportion of girls, electronics - the one in which enrollments of girls appeared to lag behind girls' parents' interest, and construction and maintenance trades - the one in which girls were minimally represented but in which the national government had set hiring goals for women.

A purposive, multistage cluster sampling technique was used to select respondents. From the three main types of school districts within New York State, schools and their associated programs were selected from each district on the basis of the distribution of the sexes. Within each type of school district two schools were selected - one with relatively large percentages of the underrepresented sex (called high cross-sex enrollment schools) and one with relatively low percentages of the underrepresented sex (called low cross-sex enrollment schools). Attempts were made to include schools from all 13 occupational education planning regions. Selections of specific schools were made in such a manner as to maximize the contrast

between low and high cross-sex enrollments at schools within types of district and region. When possible, schools which had approximately the same total enrollment in the program of interest and which offered similar courses within the program were selected. This method of selection produced 32 schools for the occupational education sample.

Tenth grade students were selected from the "feeder" schools for each of these schools with occupational programs. Where the schools in the occupational education sample included nonoccupational courses (16 schools) the school served as its own feeder. The other 16 feeder schools were chosen randomly from all the feeder schools for each occupational education school. This gave a total of 48 schools.

Of the 48 schools initially selected, 34 participated. Fifteen schools were involved only in the occupational education survey, 12 only in the 10th grade survey, and seven in both. The average response rate of the 10th grade students at responding schools was approximately 75 percent of their reported enrollments. The average response rate of the occupational education students at the 22 schools returning surveys was 51 percent of reported enrollments.

Findings

Tenth grade students. Thirty-eight percent of the students who completed the survey were taking occupational education courses during the 10th grade. Those already taking such courses were far more likely than others to continue to take an occupational education course in the 11th or 12th grade.

Of the 10th graders planning to take occupational courses, over 40 percent of both the boys and the girls reported that no one had helped them make this decision. For those who had been helped, the greatest source of influence were people of the same sex as the student (see Table 1). For

instance, a greater proportion of boys were helped in selecting their occupational education courses by fathers and male friends or brothers than by others besides themselves and a greater proportion were influenced by these same males. Similarly, girls in greater proportions were both helped and influenced by mothers and sisters or girlfriends.

Table 1

Source of Greatest Influence on Choice of Occupational Education Course by Sex

Sources of Influence	Boys (N=84)	Girls (N=104)
No one or myself	31.0%	21.2%
Mother or stepmother	10.7	32.7
Father or stepfather	21.4	8.7
Female friends or sister	6.0	19.3
Male friends or brother	19.0	2.9
Any counselor	3.6	9.7
Any teacher	3.6	2.9
Others	4.8	3.0

Boys and girls differed in the degree of support or opposition they expected from parents, guidance counselors and peers for every occupational program except data processing. Both girls and boys expected more support for programs traditionally associated with their own sex. Male friends were perceived as being most opposed to nontraditional programs for boys and girls. Many students seemed unaware of the attitudes of their parents, peers, and

especially guidance counselors, toward occupational education programs in general, and nontraditional programs in particular. Parents' actual reactions to program choices were similar to those perceived by the students and were strongly sex-stereotyped.

The most frequently selected reasons for choosing occupational education courses were job-related. Boys seemed more likely to be acquainted with the nature of the work and with people in the field. A larger proportion of boys than of girls reported holding full-time or part-time jobs. Girls were more likely than boys to indicate that chores at home were their current work responsibilities.

Thirty-three percent of boys and 55 percent of girls had considered taking a nontraditional course. However, few students actually planned to take nontraditional courses. Lack of encouragement reported by students seems a likely adverse influence on the decision to take a nontraditional course. Over 40 percent of the boys and over 50 percent of the girls reported that no one encouraged them to consider such courses. The most frequently cited sources of encouragement by girls were, in order, female friends, mother and father. Boys most frequently stated mothers and then fathers were sources of encouragement.

Students chose a number of alternative factors that would reduce their uneasiness in enrolling in a nontraditional course (see Table 2). Concerns for the students differ by gender. Girls stressed job opportunities, pay, and useful non-job related skills, classroom factors of students' friendliness and teacher firmness, and having another girl or female friends in the course. Although boys are also interested in the potential earnings of nontraditional occupations, the factors they find most conducive to enrollment in nontraditional courses are having their male friends in the course, and having a six-week trial period. Consideration should be given to using essentially all the factors - subculture, classroom situation, and long-term skills and occupational prospects - to reduce uneasiness in selecting nontraditional courses.

Table 2

Factors That Would Reduce Uneasiness in Enrolling in a Non-traditional Course by Sex

Factors	Boys (N=126)	Girls (N=149)
Course leads to earning good money	45.2%	49.0%
Course leads to job opportunities	34.1	53.0
Having another student of your sex in the course	35.7	51.0
Female friends in course	37.3	49.0
Male friends in course	49.2	36.9
Knowing students would be friendly	28.6	51.7
Six-week trial	42.1	39.6
Knowing teacher would be fair	19.0	51.7
Learn useful non-job-related skills	26.2	43.6
Parents' approval	26.2	36.2
At least 20% of students of one's sex	34.9	24.8
Course offered at home school	16.7	24.8
Guidance counselors' approval	19.8	21.5
Female friends' approval	21.4	18.1
Male friends' approval	23.8	14.8
One-year program	7.9	12.1
None of these factors would be important	11.9	2.7
Other factors	4.8	3.4

Occupational education students. Student surveys were also completed by 832 students enrolled in occupational education courses (589 males and 243 females) at 22 schools. Most of these were satisfied with their selection of these courses. The reasons for selecting their particular courses were predominantly the preparation it would provide for later work and the intrinsic interest of that work for them, as well as their ability to perform the particular type of work.

The courses in which students were actually enrolled were for the most part traditional for their sex. An analysis of the assistance and influence of others on the students showed that girls were helped to decide on their courses by their female peers, mothers, no one, counselors, fathers and male peers, in that order of frequency (see Table 3). Boys, on the other hand, most frequently cited no one as a source of help, followed in order by fathers, counselors, male peers, and mothers. On the whole, the students perceived widespread support for their occupational education course selection. Mothers, followed by fathers, guidance counselors and female friends, were perceived as most supportive of the decision. Over 70 percent of boys perceive fathers, male friends and guidance counselors as supportive toward enrollment in traditionally male courses. Slightly fewer see their mothers and female friends as similarly supportive.

Table 3

Percentage of Students Perceiving Help in Choosing Occupational Course by Source of Help* and Sex

Source of Help	Boys (N=560)	Girls (N=254)
No one	45.9%	36.6%
Mother or stepmother	22.3	41.3
Father or stepfather	32.5	20.5
Female friends or sister	8.6	42.9
Male friends or brother	24.6	13.8
Any counselor	26.8	20.9
Any teacher	8.8	4.3
Others	6.4	9.1

* Multiple responses allowed

Of the two traditionally female subjects about which the students were questioned, home economics is perceived by more boys to be supported for themselves than is cosmetology. Guidance counselors, followed by female friends and mothers, are most often thought to be supportive of selecting these subjects. However, the amount of support perceived is still limited. Male friends are expected to be the least supportive of studying nontraditional subjects.

For girls the choice of traditionally female subject areas of cosmetology and home economics is most often anticipated to elicit support from others. Among the other courses, data processing is the one most often

perceived as supported for girls. For girls, as boys, male friends are perceived to be the most opposed to nontraditional programs. Few students who had considered taking a nontraditional course reported experiencing encouragement or discouragement for doing so.

Teachers and counselors. Teachers and counselors from the participating schools were also surveyed about their attitudes towards nontraditional enrollment in vocational education programs, previous participation in sex-equity training workshops and current practices which might facilitate or discourage nontraditional enrollments. A total of 63 teachers and 60 school counselors were surveyed, including 46 teachers in occupational education programs.

Several of the specific questions differed for occupational education and tenth grade counselors and teachers since these groups have varying types of contact with students and degrees of responsibility for student recruitment.

Occupational education teachers were asked to respond to an open-ended question concerning the efforts each had made to increase enrollments of the underrepresented sex in his or her course. Of the 46 teachers in the sample, 59 percent either described a personal effort they had made or thought no particular effort was necessary since they had no "underrepresentation" in their classes. The statement of the latter group of teachers was corroborated through enrollment data reported earlier: nine teachers (21% of those reporting enrollments) had 20 percent or more students of the underrepresented sex in their classes. The remaining teachers (41%) had made no efforts to increase enrollments.

The types of efforts employed by teachers give an insight into some current procedures for increasing cross-sex enrollment. These efforts can be classfied in three groups. First, teachers personally encourage students on a one-to-one basis; for example, answers included "Personal interviews with prospective students" or "Encouraging current students to

'talk-up' the courses." Second, some teachers offer orientation programs. Their answers included, "Speaking and deomonstrating at home schools and settlement houses," and "Encourage girls to take course when they enter through the many tours conducted by counselor." The latter comment was from a teacher of Electronics. Third, some teachers emphasize nontraditional job opportunities to students. An Architectural Drafting teacher reports, "I have personally encouraged females to enroll and am able to place females in a work situation if they are adequately prepared." An instructor of Sheet Metal Technology states that "During exploratory shop rotation, I make a point of telling my students the need that my industry has for women and their opportunities in the field."

Teachers who reported making a personal effort to increase nontraditional enrollments already have students of both sexes represented in their classes. Of the 22 teachers who teach single sex (traditional) classes, only 36 percent described an attempt to increase nontraditional enrollments. The remaining 21 teachers who reported class enrollments taught both male and female students; of these teachers 81 percent reported personal efforts to attract nontraditional students or already had a minimum of 20 percent of the nontraditional sex enrolled. While based upon limited numbers, this suggests a positive association between a teacher's efforts to increase enrollment and the presence of nontraditional students in the instructor's classes. However, it is not known whether the special efforts led to cross-sex enrollment or whether teachers found teaching nontraditional students to be a favorable experience leading to further efforts to increase enrollments.

Recommendations

This study has a number of implications for intervention at the school level. In particular, the possibility to affect students' choices of occupational courses through the influence of others has been assessed. Presently for many students, parents are the most important source of influence in such decisions, followed by same sex peers, and then opposite sex peers and school personnel. Knowing the relative impact of others suggests at least two courses of action: 1) provide information and resources to those who have the greatest influence and 2) increase the impact of school personnel when possible.

To accomplish these objectives and move toward reducing sex-stereotyping in choices of occupational courses, a number of recommendations are made. One is to increase information and counseling for students and parents about nontraditional occupations. Some specific approaches or activities might include: providing increased opportunities for both students and parents to obtain information about nontraditional careers, having counselors in home schools well-informed about career options and employment data, having home school counselors encourage students and parents to consider nontraditional subjects considerably before the time when decisions to enroll are to be made, and having teachers attend workshops and make a personal effort to increase nontraditional enrollment. Another suggestion is to develop a support system for students who are making career decisions and for students enrolled in nontraditional programs.

Some specific approaches recommended are: identify students who are considering nontraditional courses to encourage their interest, promote nontraditional students acting as a support system for one another by placing two or more together in classes when possible or organizing students to facilitate their interaction across programs, utilize nontraditional students to serve as role models and answer questions about concerns of students considering nontraditional programs, identify leaders of student peer groups for possibly reaching others through them, build on the support that girls already perceive from other girls for nontraditional course selection, present

information to those few male students who presently oppose nontraditional enrollments, and work more closely with parents to help them provide support to students for their decisions.

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